

REMARKS

Claims 1-20 are currently pending. Claims 1, 2, 8, 10, 11 and 15 have been amended. Claims 17-20 have been newly added.

A characteristic of the present invention is “a hollow filament made of materials which can become an arbitrary shape laid on a surface of the first adhesive layer to have an arbitrary shape” and functioning as a flow channel layer of the microfluidic system. Applicants respectfully submit that the cited art does not teach or provide any reason to make and use Applicants’ claimed invention and characteristic discussed above.

I. The Rejection under 35 U.S.C 102 Based on Anderson et al

Claims 1-3, 7/2, 7/3, 10-11, and 14/11 are rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Anderson et al. (US 2002/0015952).

In Anderson et al. (US 2002/0015952), all the tubes are bundled up in the same orientation, and tubes are straight-line shape. Therefore, Applicants’ respectfully submit that Anderson et al. cannot arrange in “arbitrary shape” as in the present invention.

Further, the adhesive layer of Anderson et al. has the function of attaching a section of microarray chip to the substrate. Applicants respectfully submit that the structure of Anderson et al. is different from “a hollow filament laid on a surface of the first adhesive layer” which is a characteristic of the present invention.

Also, the disclosure of Anderson et al. is for tips to be provided by means of slicing the tube bundled up thin. Thus, the present invention is different from Anderson et al. in both a structure and an effect.

For the above reasons, it is respectfully submitted that the subject matter of claims 1-3, 7/2, 7/3, 10-11, and 14/11 is neither taught by nor made obvious from the disclosures of Anderson et al and it is requested that the rejection under 35 U.S.C. §102 be reconsidered and withdrawn.

II. The Rejection under 35 U.S.C 102 Based on Frazier et al

Claims 2, 5/2, and 6/2 are rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Frazier et al. (WO 00/16833).

In Frazier et al., a flow path is straight-line shape or perpendicular shape. Therefore, Applicants' respectfully submit that Frazier et al. cannot arrange an "arbitrary shape" as in the present invention. In Frazier et al. there is not the degree of freedom of a flow path design such as in the present invention.

For the above reasons, it is respectfully submitted that the subject matter of claims 2, 5/2, and 6/2 is neither taught by nor made obvious from the disclosures of Frazier et al and it is requested that the rejection under 35 U.S.C. §102 be reconsidered and withdrawn.

III. The Rejection Based on Durst et al

Claims 2-5, 7, 11, and 13 are rejected under 35 U.S.C. 102(b) as being allegedly anticipated by or, in the alternative, under 35 U.S.C. 103(a) as being allegedly obvious over Durst et al. (DE4308697).

In Durst et al. hollow capillary fibers are structure having the small bore where gaseous and liquid can go in and out of from the side. Applicants submit that the present invention does not have the aim of gaseous and liquid that can go in and out of the side of hollow filaments, Thus, the present invention is different from Durst et al. in both structure and an effect.

For the above reasons, it is respectfully submitted that the subject matter of claims 2-5, 7, 11, and 13 is neither taught by nor made obvious from the disclosures of Durst et al and it is requested that the rejection under 35 U.S.C. §102/103 be reconsidered and withdrawn.

IV. The Rejection Based on Anderson and further in view of Frazier et al.

Claim 6/2 and 6/3, is rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Anderson further in view of Frazier et al. (WO 00/16833).

Applicants respectfully submit that the disclosures of Frazier do not overcome the deficiencies in Anderson as set forth above.

V. The Rejection Based on Anderson in view of Wolk

Claims 8-9, and 15-16 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Anderson as applied to claims 1-3, 7, 10-11, and 14 above, and further in view of Wolk (US 6,148,508).

Wolk discloses a connector which links an outside channel to a hollow filament part. The present invention opens a hole in the inside of the microfluidic system, and a relay portion is arranged between hollow filaments. Thus, the present invention is different from Wolk in both a structure and an effect.

Applicants also respectfully submit that the disclosures of Wolk do not overcome the deficiencies in the primary reference Anderson as set forth above.

VI. The Rejection Based on Anderson in view of Matson

Claims 12, 13/12 and 14/12 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Anderson et al. (US2002/0015952) further in view of Matson et al. (US 5,429,807).

Matson et al. discloses channels which comprised in the surface of a plate is connected to a connector placed in a hole established to the plate as shown in Fig. 2 and an end of the connector is exposed to the back side of a plate. And the connector which was exposed to the back side of the plate can be connected to a tube from the outside. Thus, the present invention is different from Matson et al. in both a structure and an effect.

Applicants also respectfully submit that the disclosures of Matson et al do not overcome the deficiencies in the primary reference Anderson as set forth above.

VII. Conclusion

In view of the above, Applicants respectfully submit that their claimed invention is allowable and ask that the rejections under 35 U.S.C. §102 and §103 be reconsidered and withdrawn. Applicants respectfully submit that this case is in condition for allowance and allowance is respectfully solicited.

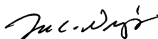
If any points remain at issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the local exchange number listed below.

Application No. 10/505,416
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Amendment under 37 C.F.R. §1.111

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,
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